Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

# General Notes.

## GEOLOGY AND PALEONTOLOGY.

**Oneonta and Chemung Formations in Eastern Central New York.**—The Oneonta formation comprises a thick mass of red shales and red and gray sandstones, similar in character to the rocks of the Catskill Mountains. They overlie the Chemung formation in southern New York and northern Pennsylvania. The recent investigations of Mr. N. H. Darton confirm Professor Hall's supposition that the Oneonta beds represent the eastern extension of the Portage formation. The former is characterized by a large quantity of red shale which occurs as streaks in the lower beds, a thick mass a little higher in the series, and constitutes elongated lenses in the gray flags and red sandstones of the upper member of the formation. Toward the western termination of the Oneonta formation the red material rapidly disappears and its place is taken by gray shales and thin bedded sandstone. There can be no doubt of the continuity of sedimentation throughout. Toward the east the formation increases in thickness until it comprises the lower thousand feet of beds in the Catskill Mountains. The Chemung fossiliferous shales which overlie the Oneonta formation south of Franklin grade upward through a series of flags into hard, coarse, cross-bedded gray sandstones with intercalated red shale layers. Toward the east the fossiliferous shales merge into flags, and then into hard, coarse sandstone with flaggy layers along the eastern front of the Catskill Mountains.

Since the rocks of the Catskill Mountains comprise the Chemung and Portage horizons, Mr. Darton proposes to discard the use of Catskill to designate a formation, and to use the term Catskill group to include the Chemung and Portage formations. (Am. Journ. Science, March, 1893.)

**Tertiary Insects from Colorado and Utah.**—Bulletin No. 93 of the Geological Survey comprises descriptions of eight species of Oligocene insects from Florissant and other points in Colorado and Utah, by Samuel H. Scudder.

Of this group of interesting fossils six are referred to new genera. In a short introduction the author gives the special claim which each has for consideration. The Trichocemsis represents a type hitherto considered exclusively gerontogeic; the Stenogomphus is the first Gomphine fossil found in this country; the Cicada for its great size and for being the first member of its family known from American rocks; the Hymenoptera is curiously related to Oriental forms; the Diptera are interesting departures from the modern types to which they are most nearly allied; the two Coleoptera present some curious features; the butterfly is of exceptional interest as belonging to a waning type which probably flourished remarkably in Oligocene times, if the published figures are to be regarded as having any weight at all.

**A Supposed New Order of Gigantic Fossils from Nebraska.**—In "University Studies," published by the University of Nebraska, 1893, Mr. E. H. Barbour describes and figures a number of gigantic mineral bodies of such anomalous form and structure, that the author offers as a merely provisional classification until their place can be more definitely determined.

These fossils are found in the Miocene beds which follow the divide between the White and Niobrara rivers in Sioux County, Nebraska. They are very abundant and increase in size toward the southern limit of the beds. In appearance they resemble colossal corkscrews varying from two to nine feet in length. A transverse piece corresponding to the handle of the corkscrew, for which the term rhizome is adopted by the author, is often three feet in diameter. The fossil corkscrew is invariably vertical, while the so-called rhizome as invariably curves rapidly upward and extends outward an indefinite distance. Some of the screws coil about an axis, others are unsupported. The author is positive as to their organic origin, and is inclined to believe them to be sponges. Five microscopic slides show certain smooth spindle-shaped rods suggestive of sponge spicules, but a sixth section reveals unmistakable plant cells. A third evidence of their organic nature is the characteristic intricate network of minute silicious tubes in the stems. To add to the difficulty of the problem, a well-preserved skeleton of a rodent was found in the great stem of one specimen. This rodent is the size of a "jack rabbit," with proportionately large incisors, sagittal and occipital crests high and sharp, and a mole-like shoulder girdle.

In order to preserve the appropriate name—"Devil's Corkscrew"—bestowed by the ranchmen, Mr. Barbour calls these strange fossil forms Daimonelix.

The most probable explanation of these objects seems to be that they are the casts of the burrows of some large rodent. The horizontal portion will then be the entrance; the enlargements the position of the nests, and the spiral vertical portions shafts for safety or escape of the occupants, or for the admission of air; the spiral being necessary for the convenient ascent of the animal. It is well known that species of Thomomys make spiral burrows; and remains of this genus are not rare in the Plistocene beds of Kansas.—C.

**Mammalia from the "Pits of Gargas."**—In the grotto of Gargas, not far from Montréjean, a number of pits have been found about 100 metres from the entrance. These pits are 20 metres in depth and have mouths so narrow that it is with difficulty that a man can force himself through the openings. M. Regnault has recently explored these pits and found them rich in fossil remains of bears (*Ursus spelæus*, the small variety), wolves (*Canis lupus*), and hyaenas (*Hyaena crocuta*). M. Gaudry notes the unusual circumstance of the fine state of preservation of the fossils, particularly of a hyaena and a wolf, of which almost complete skeletons were obtained. These finds have been made the subject of a joint paper by MM. Gaudry and Boule, in which they discuss the affinities of these cave animals, and give tabular statements of the genealogy of the bears and of the hyaenas. The latter differs from the one published by Schlosser in 1890.

A series of fine plates illustrates the paper. (Materiaux Pour. l' Histoire des Temps Quaternaires. Quatrième Fascicle, Paris, 1892.)

Mr. G. F. Matthew reports a new genus, Protolemus, of Trilobites from the St. John group of the lower Cambrian beds. The new genus is represented by two species, *P. elegans* and *P. parodoxoides*. (Bull. New Brunswick Nat. Hist. Soc., 1892.)

The Cleveland shale of Ohio has yielded a new Coccostean, which is described by Professor Claypole under the specific name *Coccosteus cuyahôgae*. This species comes from a higher horizon than either *C. hercynius* or *C. occidentalis*, and is remarkable for its large size. (Am. Geol., March, 1893).

**Paleozoic.**—Mr. H. E. Sauvage has been studying the fish fauna of the Permian of France. He finds that of 24 species, 14 are, for the present, peculiar to France. This fauna is, undoubtedly, that of the Lower Permian, and is characterized by a predominance of species belonging to the genera Amblypterus. (Revue Scientifique, Avril, 1893.)

**Mesozoic.**—According to Chapman, the Phosphatic Chalk of Taplow, England, has yielded 5 species and varieties of Ostracoda, all previously known, and 98 species and varieties of Foraminifera, of which the following are new to science: *Nubecularia jonesiana*, *Textu-*

*laria decurrens, Textularia serrata, Bulimina trigona,* and *Bolivina strigillata.* (Quart. Journ. Geol. Soc., Nov., 1892).

**Cenozoic.**—The Pliocene fauna of Rousillon, which now numbers over 30 species of vertebrata, has recently had a second Proboscidian, *Mastodon borsonii*, added to the list of mammalia. The specimen, found near Villeneuve-de-Raho, consists of the series of upper molars, a tusk, and a part of the right occipital region. This discovery is important, as it gives a wide geographical range to *M. borsonii*, which has not before been known from any pliocene bed of southern France. (Revue Scientifique, Mars, 1893.)

Dr. Noetling, in a report on Jade in Upper Burmah, says that jade is found in association with and enclosed in an eruptive rock closely resembling serpentine, and that this serpentine pierces strata of perhaps lower, but more probably Upper Miocene date. The jade found in Burmah belongs to a group of eruptive rocks of late Tertiary age. (Nat. Sci., April, 1893.)

The prevalence of lake basins in glaciated countries is accounted for by Mr. J. C. Hawkshaw by the following conditions:

Earth movements in limited areas tend to form basins; these movements are gradual, and, under ordinary circumstances, the basins are obliterated by water-borne detritus, growth of vegetation and erosion. In glaciated regions the basins are not only protected by the ice from such destructive action, but they are still further deepened by its grinding action. (Nature, April 13, 1893.)

M. M. Boule has described and figured the *Hyaena brevirostris* found by M. Aymard in the Pliocene deposits of Sainzelles near Puy (Haute Loire). Although this fossil has been referred to by Pomel, Gervais, Gaudry and Weithofer, no detailed description of it accompanied by figures has ever before been given. (Ann. Sci. Nat. Zool. t. XV, 1893.)

According to Mr. R. T. Hill, the Hematite and Martite iron ores of Mexico occur in the Cretaceous and Tertiary rocks, and are undoubtedly of later age than the rocks in which they occur. This is an unusual geologic age for ore. (Am. Journ. Sci., Feb., 1893.)

Mr. Warren gives, as a result of a comparison between pleistocene and present ice-sheets, an opinion that the Ice Age was a continuous and geologically brief period. (Bull. Geol. Soc. Am., Vol. IV, 1893.)

Mr. E. T. Dumble reports the occurrence of Grahamite in two localities in Texas. The first specimen came from the Fayette beds in Webb County, the second from the lowest strata of the Eocene exposed on the Rio Grande River in Fayette County. (Trans. Am. Inst. Mine Engineers, 1892.)